UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/639,070	08/12/2003	Steven E. Riedl	61575.1030	6931
	7590 03/16/201 & ASSOCIATES, PC		EXAMINER	
16644 WEST B	ERNARDO DRIVE		BANTAMOI, ANTHONY	
SUITE 201 SAN DIEGO, CA 92127			ART UNIT	PAPER NUMBER
			2423	
			MAIL DATE	DELIVERY MODE
			03/16/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)			
Office Action Summary		10/639,070	RIEDL, STEVEN E.			
		Examiner	Art Unit			
		ANTHONY BANTAMOI	2423			
Period fo	The MAILING DATE of this communication ap r Reply	pears on the cover sheet with the c	orrespondence address			
WHIC - Exten after: - If NO - Failur Any re	DRTENED STATUTORY PERIOD FOR REPL HEVER IS LONGER, FROM THE MAILING D sions of time may be available under the provisions of 37 CFR 1. SIX (6) MONTHS from the mailing date of this communication. period for reply is specified above, the maximum statutory period to to reply within the set or extended period for reply will, by statute eply received by the Office later than three months after the mailing dipatent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be timwill apply and will expire SIX (6) MONTHS from e, cause the application to become ABANDONE	lely filed the mailing date of this communication. (35 U.S.C. § 133).			
Status						
1) 又	Responsive to communication(s) filed on 19 C	October 2009.				
•	• • • • • • • • • • • • • • • • • • • •	s action is non-final.				
- '=	, 					
-	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.					
	on of Claims					
· ·		4 66-69 71-75 is/are pending in the	annlication			
•	4)⊠ Claim(s) <u>1-13,15-22,28-29.31-42.44-49. 55-64.66-69.71-75</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.					
	5) Claim(s) is/are allowed.					
· —	6)⊠ Claim(s) <u>1-13,15-22,28-29.31-42.44-49. 55-64.66-69.71-75</u> is/are rejected.					
· ·	Claim(s) is/are objected to.					
	Claim(s) are subject to restriction and/o	or election requirement.				
•		4				
	on Papers					
•	The specification is objected to by the Examine		_			
-	10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).						
11)[11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority u	nder 35 U.S.C. § 119					
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 						
	2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage						
	application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of the certified copies not received.						
Attachment	(e)					
_	e of References Cited (PTO-892)	4) 🔲 Interview Summary	(PTO-413)			
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date						
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application 6) Other:						

DETAILED ACTION

Response to Arguments

Applicant's filed10/19/2009 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,3, 4, 6-10, 13, 15-22, 28, 29, 32-37, 40-42, 44-49, 55, 58-60, 63-64, 66-69, and 72-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,463,585 to Hendricks et al. (Hendricks), in view of WO 01/91474 A2 to Kinder et al. (Kinder).

Regarding claim 1, Hendricks teaches a method of delivery of programming content to a plurality of user terminals over a communication network (Abstract), comprising:

detecting an indicator indicative of an event in the delivery of the programming content (col. 30, II. 2-4 (the spot placement engine receives information about program break (event) wherein the received information about the program break meets "an indicator" because the information tells the spot placement engine the available open pods of a program break see col. 31, II. 28-30); Hendricks teaches a spot placement engine for determining which advertisements should occupy the pods during the

broadcast programs based on the received information (col. 31, II. 33-41) which meets "in response to a detection of the indicator, generating at least one programming segment"); Hendricks teaches obtaining data descriptive of at least one group of members of a group (col. 27, II. 1-6); providing programming segment in lieu of <u>at least a portion of</u> the programming content during the event (col. 26, II. 36-41, & Abstract).

Hendricks is silent on in response to a detection of the indicator, generating a list of individual ones of the plurality of user terminals currently receiving the programming content; obtaining data descriptive of at least one group of members of the list; generating <u>substantially in real-time</u> at least one programming segment based at least on the data.

Kinder teaches generating a list of individual ones of the plurality of user terminals currently receiving the programming content (page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)); obtaining data descriptive of at least one group of members of the list (page 5, II. 7-9 (the metadata describes the content that viewer actually viewed which is descriptive of at least one viewer of a demographic group)); generating <u>substantially in real-time</u> at least one programming segment based at least on the data (page 5, II. 12-14, Page 5, II. 6-23, page 6, II. 5-9, with emphasis on page 7, II. 1-8).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include in response to a detection of the indicator, generating a list of individual ones of the plurality of user terminals currently receiving the programming content; obtaining data descriptive of at least one

group of members of the list; generating <u>substantially in real-time</u> at least one programming segment based at least on the data as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Regarding claim 3, Hendricks teaches the method further comprising identifying available transmission channel in the network and transmitting at least one programming segment over at least one available transmission channel (col. 31, II. 28-30, & col. 31, II. 33-41).

Regarding claims 4, 31, Hendricks teaches the method wherein the event includes an advertisement break (col. 31, II. 28-30).

Regarding claim 6, Hendricks teaches the method wherein at least one programming segment comprises one or more advertisements (col. 31, II. 36-41).

Regarding claims 7, 21, 34, 58, 63, 72, Hendricks teaches the method wherein the network includes a two-way multi-channel delivery network (figure 4e (the collection engine (327) collects set-top box data via upstream)).

Regarding claim 8, Hendricks teaches the method wherein the network includes a cable TV network (figure 1, label 208 (Hendricks teaches a cable headend)).

Regarding claims 9, 69, Hendricks teaches a method for delivering a program stream containing programming material over a communications network to a plurality of user terminals (Abstract), comprising:

detecting, in the program stream, a message indicating a scheduled programming segment (col. 30, II. 2-4 (the spot placement engine receives information

about program break (event) wherein the received information about the program break meets "an indicator" because the information tells the spot placement engine the available open pods of a program break see col. 31, II. 28-30); Hendricks teaches a spot placement engine for determining which advertisements should occupy the pods during the broadcast programs based on the received information (col. 31, II. 33-41) which meets "in response to a detection of the indicator, generating at least one programming segment"); Hendricks teaches obtaining data descriptive of at least one group of members of a group (col. 27, II. 1-6).

In addition Hendricks teaches <u>directing at least one user terminal in a selected</u> one of the one or more groups to tune from a first transmission channel to a second transmission channel at the start of the scheduled programming segment; transmitting at least one of the data streams over the second transmission channel; and directing the at least one user terminal in the selected one of the groups to re-tune to the first transmission channel at the end of the scheduled programming segment (col. 26, II. 36-41, & col. 28, II. 9-16 (the STB will inherently tune back to the main channel to continue programming except if over ridden by user)); one or more data streams containing one or more alternate programming segments for substituting the scheduled programming segment (col. 26, II. 36-41, & Abstract).

Hendricks is silent on in response to a detection of the message, identifying a set of user terminals currently receiving the program stream; identifying one or more groups of user terminals within the set of user terminals currently receiving the program stream;

generating, subsequent to <u>and based at least in part on</u> identifying one or more groups of user terminals within the set of user terminals currently receiving the program stream.

Kinder teaches identifying a set of user terminals currently receiving the program stream; identifying one or more groups of user terminals within the set of user terminals currently receiving the program stream (page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)); generating, subsequent to and based at least in part on identifying one or more groups of user terminals within the set of user terminals currently receiving the program stream (page 5, II. 12-14, page 5, II. 7-9, Page 5, II. 6-23, & page 6, II. 5-9, with emphasis on page 7, II. 1-8).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include in response to a detection of the message, generating a list of individual ones of the plurality of user terminals currently receiving the programming content; obtaining data descriptive of at least one group of members of the list; generating, subsequent to and based at least in part on identifying one or more groups of user terminals within the set of user terminals currently receiving the program stream as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Regarding claim 10, Hendricks teaches the method wherein the scheduled programming segment comprises one or more advertisements (col. 31, II. 33-41).

Regarding claim 13, Hendricks teaches the method wherein at least one of the alternate programming segments comprises one or more advertisements (col. 26, II. 18-24).

Page 7

Regarding claim 15, Hendricks teaches where in the one or more groups are identified by analyzing demographic data associated within the user terminal set (col. 26, II. 60-63).

Regarding claim 16, Hendricks teaches the method, wherein the one or more groups are identified as a function of at least the number of available transmission channels in the network (col. 29, II. 67, & col. 30, II. 1-4).

Regarding claim 17, Hendricks teaches the method wherein the one or more groups are identified also as a function of the number of additional scheduled programming expected to occur concurrently within the scheduled programming segment (col. 29, II. 67, & col. 30, II. 1).

Regarding claim 18, Hendricks teaches the method wherein the one or more groups are identified also as a function of the additional programming streams expected to be delivered concurrently within the programming stream during the scheduled programming segment (col. 29, II. 67, & col. 30, II. 1).

Regarding claim 19, Hendricks teaches the method wherein the additional program streams utilize a subset of the available transmission channels (col. 29, II. 67, & col. 30, II. 1-4).

Regarding claim 20, Hendricks teaches the method further comprising determining a subset of the available transmission channels for carrying the one or more data streams (col. 29, II. 67, & col. 30, II. 1-4).

Regarding claims 28, 60, Hendricks teaches a system for delivering programming content over a communications network (figure 1, entire), comprising:

a detector (figure 4c, label 307) for detecting an indicator indicative of an event in the delivery of the programming content (col. 30, II. 2-4 (the spot placement engine receives information about program break (event) wherein the received information about the program break meets "an indicator" because the information tells the spot placement engine the available open pods of a program break see col. 31, Il. 28-30); Hendricks teaches a spot placement engine for determining which advertisements should occupy the pods during the broadcast programs based on the received information (col. 31, II. 33-41) which meets "a processing unit (figure 4c, label 307), responsive to a detection of the indicator, generating at least one programming segment"); wherein the system is configured to identify available transmission channels in the network, the at least one programming segment being transmitted over at least one of the available transmission channels. (col. 30, Il. 1-4, & 54-61); a mechanism for providing, to the at least one group, the at least one programming segment in lieu of at least a portion of the programming content during the event (col. 26, II. 36-41, & Abstract).

Hendricks is silent on a processing unit, responsive to a detection of the indicator, for generating a list of an audience currently receiving the programming

content, data being obtained which is descriptive of at least one group of members of the audience; a server for generating at least one programming segment based at least on the data.

Kinder teaches a processing unit, for generating a list of an audience currently receiving the programming content, data being obtained which is descriptive of at least one group of members of the audience (page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)); a server for generating at least one programming segment based at least on the data (page 5, II. 12-14, page 5, II. 7-9, Page 5, II. 6-23, & page 6, II. 5-9, with emphasis on page 7, II. 1-8).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include a processing unit, responsive to a detection of the indicator, for generating a list of an audience currently receiving the programming content, data being obtained which is descriptive of at least one group of members of the audience; a server for generating at least one programming segment based at least on the data as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Regarding claim 33, Hendricks teaches the system wherein at least one programming segment comprises one or more advertisements (col. 31, II. 36-41).

Regarding claim 36, 68, Hendricks teaches a system for delivering a program stream containing programming material over a communications network to a plurality of user terminals (figure 1, entire), comprising:

a module for dynamically assigning transmission channels (figure 4c, label 305); a detector for detecting, in the program stream, a message indicating a scheduled programming segment (figure 4c, label 307, & col. 30, II. 2-4 (the spot placement engine receives information about program break (event) wherein the received information about the program break)); Hendricks teaches a spot placement engine for determining which advertisements should occupy the pods during the broadcast programs based on the received information (col. 31, II. 33-41) which meets "a processing unit responsive to a detection of the message, responsive to a detection of the indicator, generating at least one programming segment"); and grouping said identified set of one or more terminals into one or more groups based on at least one characteristic, the at least one characteristic comprising a function of at least the number of available transmission channels in the network (figure 4c, label 309, col. 26, II. 60-63, & col. 27, II. 1-6); a server (figure 4c, label 275) for generating one or more data streams containing one or more alternate programming segments for substituting the scheduled programming segment within the program stream said alternate programming segment not being present in the programming schedule prior to said detecting (col. 31, II. 28-30, & 33-36); and a mechanism for providing at least one of the data streams over a dynamically assigned transmission channel to a selected one of the groups (col. 26, II. 60-63, col. 30, II. 1-64, & Abstract).

Hendricks is silent on a processing unit responsive to a detection of the message, for identifying a set of one or more user terminals which is currently receiving the program stream.

Kinder teaches a processing unit, for identifying a set of one or more user terminals which is currently receiving the program stream generating a list of an audience currently receiving the programming content (page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include a processing unit responsive to a detection of the message, for identifying a set of one or more user terminals which is currently receiving the program stream as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Regarding claim 37, Hendricks teaches the system wherein the scheduled programming segment comprises one or more advertisements (col. 26, II. 18-24).

Regarding claim 40, Hendricks teaches the system wherein at least one of the alternate programming segments comprises one or more advertisements (Abstract).

Regarding claim 41, Hendricks teaches directing at least one user terminal in the selected group to tune from a first transmission channel at the start of the scheduled programming segment; transmitting the at least one data stream over the second transmission channel; and directing the at least one user terminal in the selected group to re-tune to the first transmission channel at the end of the scheduled programming segment (col. 26, II. 36-41, & col. 28, II. 9-16 (the STB will inherently tune back to the main channel to continue programming except if over ridden by user)).

Regarding claim 42, Hendricks teaches the system wherein the one or more groups are identified by analyzing demographic data associated with the user terminal set (col. 26, II. 60-63).

Regarding claim 44, Hendricks teaches the method wherein the one or more groups are identified also as a function of the number of additional scheduled programming expected to occur concurrently within the scheduled programming segment (col. 30, II. 1-4).

Regarding claim 45, Hendricks teaches silent about the method wherein the one or more groups are identified also as a function of the additional programming streams expected to be delivered concurrently within the programming stream during the scheduled programming segment (col. 30, II. 1-4).

Regarding claim 46, Hendricks teaches the method wherein the additional program streams utilize a subset of the available transmission channels (col. 30, II. 1-4).

Regarding claim 47, Hendricks teaches the method further comprising determining a subset of the available transmission channels for carrying the one or more data streams (col. 30, II. 1-4).

Regarding claim 55, Hendricks teaches a method for providing targeted advertisements over a communications network, the communications network comprising a plurality of transmission channels, a selected one of the transmission channels delivering at least a program stream containing programming content to one or more of a plurality of users according to a schedule (Abstract), the method comprising:

detecting an indicator indicative of an advertising segment within the programming content (figure 4c, label 307, & col. 30, II. 2-4 (the spot placement engine receives information about program break (event) wherein the received information about the program break)); if the indicator is detected, performing the following: identifying one or more groups within the set of plurality of users (col. 27, II. 1-6); allocating one or more available transmission channels for conveying at least one advertisement data stream, the number of available transmission channels allocated being a function of the number of the groups and the number of program channels being requested by the set of the plurality of users during the scheduled presentation of the programming content (figure 4c, label 309, col. 27, II. 52-62, col. 30, II. 1-61, & col. 31, II. 33-41); providing, over the allocated one or more transmission channels, the at least one advertisement data stream which contains one or more advertisements targeted at a selected group of the set of the plurality of users, in lieu of providing the advertising segment within the programming content (col. 26, II. 60-63, col. 30, II. 1-64, & Abstract); wherein said one or more advertisements are not present within the programming schedule prior to said detecting (col. 31, II. 28-30, & 33-36).

Hendricks is silent on deriving a list of a set of the plurality of users which are receiving the programming content during the scheduled presentation of the programming content.

Kinder teaches deriving a list of a set of the plurality of users which are receiving the programming content during the scheduled presentation of the programming content

(page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include deriving a list of a set of the plurality of users which are receiving the programming content during the scheduled presentation of the programming content as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Regarding claim 66, Hendricks teaches the method, wherein said programming content comprises advertising and non-advertising content (col. 27, II. 20-22).

Regarding claim 67, Hendricks teaches the method, wherein said at least one similar characteristic comprises a similar demographic (col. 26, II. 60-63).

Regarding claim 70, Hendricks teaches the method, further comprising: identifying available transmission channels in the network; and transmitting the at least one programming segment over at least one of the available transmission channels (Abstract).

Regarding claims 74, 75, Hendricks teaches a method for delivering a transmitted program stream over a network to a plurality of user terminals (Abstract), comprising:

detecting, in the transmitted program stream, information relating to a scheduled programming segment (col. 30, II. 2-4 (the spot placement engine receives information about program break (event) wherein the received information about the program break

meets "an indicator" because the information tells the spot placement engine the available open pods of a program break see col. 31, II. 28-30); directing, at the start of the scheduled programming segment, at least one user terminal in said subset to tune from a first transmission channel over which said program stream is being transmitted, to a second transmission channel; transmitting the data stream over the second transmission channel; and directing the at least one user terminal in the subset to retune to the first transmission channel at the end of the scheduled programming segment (col. 26, II. 36-41, & col. 28, II. 9-16, & Abstract (the STB will inherently tune back to the main channel to continue programming except if over ridden by user)).

Hendricks is silent on specifying a subset of user terminals within a set of user terminals currently receiving the program stream; generating, based at least in part on said subset, a data stream containing at least one alternate programming segment for substitution of the scheduled programming segment.

Kinder teaches specifying a subset of user terminals within a set of user terminals currently receiving the program stream (page 5, II. 1-3, 9-11, & figure 3, label 40 (the selector uses the feedback tags to modify demographic mapping)); generating, based at least in part on said subset, a data stream containing at least one alternate programming segment for substitution of the scheduled programming segment (page 5, II. 12-14, Page 5, II. 6-23, page 6, II. 5-9, with emphasis on page 7, II. 1-8).

Therefore it would have been obvious to one of ordinary skills in the art at the time the invention was made to modify Hendricks to include specifying a subset of user terminals within a set of user terminals currently receiving the program stream;

generating, based at least in part on said subset, a data stream containing at least one alternate programming segment for substitution of the scheduled programming segment as taught by Kinder in order to accurately predict and deliver contents that current active viewers are interested in seeing on a video distribution system (page 1, II. 17-19).

Claims 2, 11, 29, 38, 56, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks, in view of Kinder, in view of Official Notice.

Regarding claims 2, 11, 29, 38, 56, 61, Hendricks is silent on the method wherein the indicator contains a message which includes the start and end of event.

However, the examiner takes Official Notice of the fact that it was well known in the art at the time of the invention to provide "an indicator which contains a message which includes the start and end of even".

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify information of Hendricks by specifically providing "an indicator which contains a message which includes the start and end of event", for the purpose of properly inserting a commercial into a program stream.

Claims 5, 12, 31, 39, 57, 62, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks, in view of Kinder, in view of Official Notice.

Regarding claims 5, 12, 31, 39, 57, 62, 71, Hendricks is silent on the method wherein the indicator includes a digital program insertion (DPI) cue.

However, the examiner takes Official Notice of the fact that it was well known in the art at the time of the invention to provide "DPI cues as commercial break indicators in a broadcast stream".

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify information of Hendricks by specifically providing "DPI cue", for the purpose of announcing an advertisement break.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Application/Control Number: 10/639,070 Page 18

Art Unit: 2423

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY BANTAMOI whose telephone number is (571)270-3581. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571)2727296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ANTHONY BANTAMOI/ Examiner, Art Unit 2423

/Andrew Y Koenig/ Supervisory Patent Examiner, Art Unit 2423